

WHAT IS CLAIMED IS:

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1. A programmable logic device comprising:
a plurality of logic resources;
a plurality of groups of interconnection
conductors for interconnecting said logic resources;
5 and
a plurality of programmable
interconnection resources for connecting conductors in
said groups of interconnection conductors to one
another and to said plurality of logic resources, said
10 programmable interconnection resources being less than
fully populated; said programmable logic device further
comprising:
at least one random access memory having
a read port and a write port;
15 a first programmable interconnection
resource in said plurality of programmable
interconnection resources for connecting port
conductors in said read port to a selected one of said
plurality of groups of interconnection conductors; and
20 a second programmable interconnection
resource in said plurality of programmable
interconnection resources for connecting port
conductors in said write port to said selected one of
said plurality of groups of interconnection conductors;
25 wherein:
said first and second programmable
interconnection resources are populated to allow
connection of an individual conductor in said selected
one of said plurality of groups of interconnection
30 conductors to corresponding port conductors in both
said read port and said write port.
2. The programmable logic device of claim 1
wherein said first and second programmable
interconnection resources are identically populated.

2025 RELEASE UNDER E.O. 14176

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3. A digital processing system comprising:
processing circuitry;
a system memory coupled to said
processing circuitry; and
- 5 a programmable logic device as defined
in claim 1 coupled to the processing circuitry and the
system memory.

4. A printed circuit board on which is
mounted a programmable logic device as defined in
claim 1.

5. The printed circuit board defined in
claim 4 further comprising:
a board memory mounted on the printed
circuit board and coupled to the programmable logic
5 device.

6. The printed circuit board defined in
claim 5 further comprising:
processing circuitry mounted on the
printed circuit board and coupled to the board memory.

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7. An integrated circuit comprising:
a plurality of semiconductor devices;
a plurality of groups of interconnection
conductors for interconnecting said semiconductor
5 devices; and
a plurality of programmable
interconnection resources for connecting conductors in
said groups of interconnection conductors to one
another and to said plurality of semiconductor devices,
10 said programmable interconnection resources being less
than fully populated; said integrated circuit further
comprising:

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- at least one random access memory having
a read port and a write port;
- 15 a first programmable interconnection
resource in said plurality of programmable
interconnection resources for connecting port
conductors in said read port to conductors in a
selected one of said plurality of groups of
20 interconnection conductors; and
a second programmable interconnection
resource in said plurality of programmable
interconnection resources for connecting port
conductors in said write port to conductors in said
25 selected one of said plurality of groups of
interconnection conductors; wherein:
said first and second programmable
interconnection resources are populated to allow
connection of an individual conductor in said selected
30 one of said plurality of groups of interconnection
conductors to corresponding port conductors in both
said read port and said write port.

8. The integrated circuit of claim 7
wherein said first and second programmable
interconnection resources are identically populated.

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9. A digital processing system comprising:
processing circuitry;
a system memory coupled to said
processing circuitry; and
5 an integrated circuit as defined in
claim 7 coupled to the processing circuitry and the
system memory.

10. A printed circuit board on which is
mounted a programmable logic device as defined in
claim 7.

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a board memory mounted on the printed circuit board and coupled to the integrated circuit.

processing circuitry mounted on the printed circuit board and coupled to the board memory.